

***Remarks***

Claims 1-21 are pending. Claims 1, 5, 12 and 15 have been amended. It is believed the amendments to claims 1 and 5 obviate the rejections 35 USC §112. The Examiner is therefore respectfully requested to remove these rejections.

Rejections under 35 USC 102(b)

Claims 1-5 and 10 stand rejected as anticipated by Thorey et al. (*Molecular and Cellular Biology* (1998) Vol. 18, pp 3081-3088). In imposing this rejection, it is asserted that the promoter utilized in the vectors described by Thorey et al. is a "cellular promoter."

In response, Applicants point out that the "cellular promoter" described in the Office Action as employed by Thorey et al. is a constitutive promoter, namely, the "pgk" promoter (i.e., see "Plasmids" under "Materials and Methods", as well as Figure 1, the legend to Figure 1 specifically referring to the "constitutive pgk promoter", and Fig. 3, analyzing integrations of the vector using pgk-probes). It is also explained in Thorey et al. (p3082, right column) that Cre expression results in the inserted sequence having the *lacZ* gene juxtaposed to the constitutive pgk promoter. Thus, the resulting constitutive expression of the inserted reporter gene is because of insertion of a Cre coding sequence into an actively transcribed gene (see the Abstract), rather than insertion of the reporter into a gene whose expression is lineage specific. In this regard, the fate of the inserted *lacZ* gene in the vector described by Thorey et al. is to remain constitutively expressed, irrespective of whether the promoter endogenous to the gene in which it was inserted is active or inactive due to, for example, changes in gene expression patterns related to embryonic development.

In contrast to Thorey et al., the present invention is drawn to the use of vectors comprising cell lineage specific promoters. Applicants submit that this is an important distinction over Thorey et al. because the presence of the cell lineage specific promoter is what permits tracking of changes in lineage specific gene expression patterns in the host over time. As such, in contrast to Thorey et al., the present invention provides for identifying lineage specific gene expression changes during development, without the reporter being confined to constitutive expression subsequent to the activation of Cre. Therefore, Thorey et al. does not teach a method which employs a vector comprising cell lineage specific promoters; thus, the vector taught by Thorey et al. cannot function in the same manner as the present invention. Applicants note that, as set forth in MPEP 2131, to anticipate a claim, the reference must teach each and every element of the claim. Therefore, it is submitted that Thorey et al. does not anticipate the present invention. The Examiner is therefore requested to remove the stated rejections.

Rejections under 35 USC 103

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All of the claims stand rejected under 35 USC 103(a) as obvious over Thorey et al. in view of Zambrowicz et al. (Int. J. Dev. Biol. (1998) Vol. 42, pp1025-1036), in further view of Velculescu et al. (Science (1995) Vo. 20, pp 484-487).

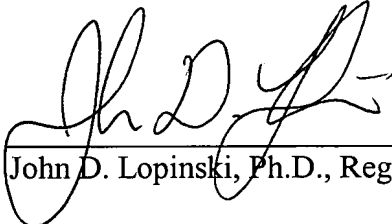
In response, Applicants reiterate that the primary reference of Thorey et al. is defective in disclosing the invention recited in the instant independent claims. Since none of the other aforementioned cited references teach or even suggest the use of a vector comprising cell lineage specific promoters, let alone using such promoters in the present method, the instant invention cannot be deemed obvious in view of the same. In this regard, Applicants point out that MPEP 2143 indicates that a basic requirement of a *prima facie* case of obviousness is that the prior art references, when combined, must teach or suggest all the claim limitations. Therefore, it is respectfully submitted that a *prima facie* case of obviousness for the present claims has not been set forth. The Examiner is courteously requested to remove the stated rejections.

### ***Conclusion***

In view of the foregoing, Applicants believe all of the claims are now in condition for allowance and courteously request the Examiner to remove the rejections and allow all of the claims.

Applicants request a one-month extension of time to file this response. A check for the required fee is enclosed. Any additional fees required may be charged to Deposit Account no. 08-2442.

Respectfully submitted,

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